

BUILDING CODE COMPLIANCE OFFICE (BCCO) PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

www.buildingcodeonline.com

## **ENOTICE OF ACCEPTANCE (NOA)**

Glass Tech Engineering, Inc. 8321 N.W. 70<sup>th</sup> Street Miami, FL 33166

#### Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: Series 2046A Aluminum Window Wall System** 

**APPROVAL DOCUMENT:** Drawing No. **W05-17**, titled "Series-2046A Alum Window Wall System (L.M.I.)", sheets 1 through 7 of 7, dated 04/08/05, prepared by AL-Farooq Corporation., signed and sealed by Humayoun Farooq, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Herminio F. Gonzalez, P.E., Director, BCCO



mx 07/13/05

NOA No 05-0620.01 Expiration Date: August 04, 2010 Approval Date: August 04, 2005

Page 1

### **Glass Tech Engineering, Inc.**

## NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No. W05-17, titled "Series 2046A Alum Window Wall System (L.M.I.)" Sheets 1 through 7 of 7, dated 04/08/05, prepared by AL-Farooq Corporation, signed and sealed by Humayoun Farooq, P.E.

#### B. TESTS

- 1. Test report on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Small Missile Impact Test per FBC, TAS 201-94
  - 5) Large Missile Impact Test per FBC, TAS 201-94
  - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with installation diagram of a aluminum window wall system, marked-up by Fenestration Testing Laboratory, Inc. Test Report No. **FTL-4537**, dated 03/23/05, signed and sealed by Edmundo Largaespada, P.E.

- 2. Test report on: 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Small Missile Impact Test per FBC, TAS 201-94
  - 5) Large Missile Impact Test per FBC, TAS 201-94
  - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with installation diagram of a aluminum window wall system, marked-up by Fenestration Testing Laboratory, Inc. Test Report No. **FTL-4537**, dated 03/21/05, signed and sealed by Edmundo Largaespada, P.E.

#### C. CALCULATIONS

1. Anchor Calculations and structural analysis, dated 05/09/05, prepared by AL-Farooq Corporation, signed and sealed by Humayoun Farooq, P.E.

#### D. OUALITY ASSURANCE

1. Miami Dade Building Code Compliance Office (BCCO).

#### E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. **03-0514.15** issued to **Oldcastle Glass Inc.** for "Storm Glass" dated 12/11/03, expiring on 12/11/08.
- 2. Notice of Acceptance No. **03-1223.04** issued to **Surface Specialties**, **Inc.** for "Uvekol, a Laminate Glass Component" dated 02/05/04, expiring on 02/08/09.

Herminio F. Gonzalez, P.E. Director, Building Code Compliance Office

NOA No 05-0620.01

Expiration Date: August 04, 2010 Approval Date: August 04, 2005

## Glass Tech Engineering, Inc.

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

## F. STATEMENTS

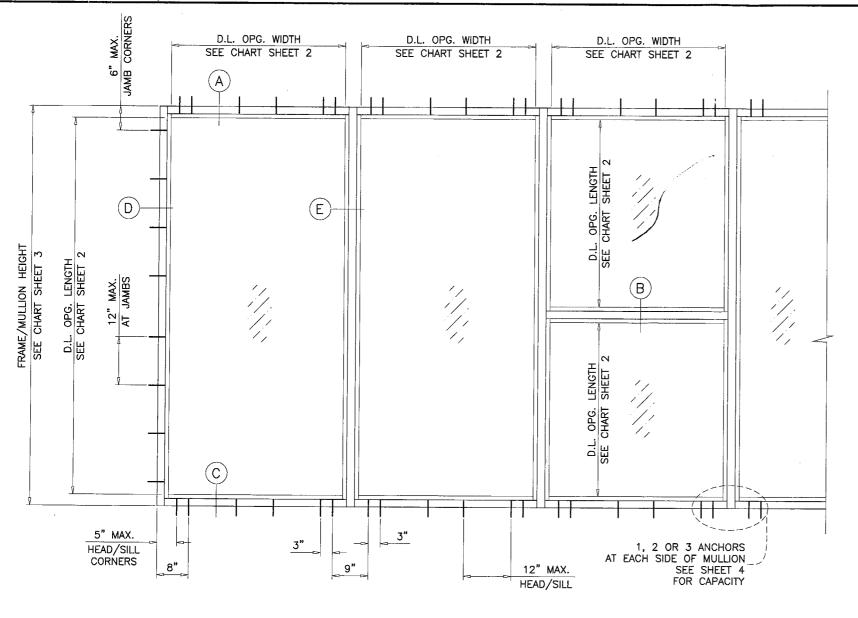
- 1. Statement letter of conformance, dated May 09, 2005, signed and sealed by Humayoun Farooq, P.E.
- 2. Statement letter of no financial interest, dated May 09, 2005, signed and sealed by dated Humayoun Farooq, P.E.

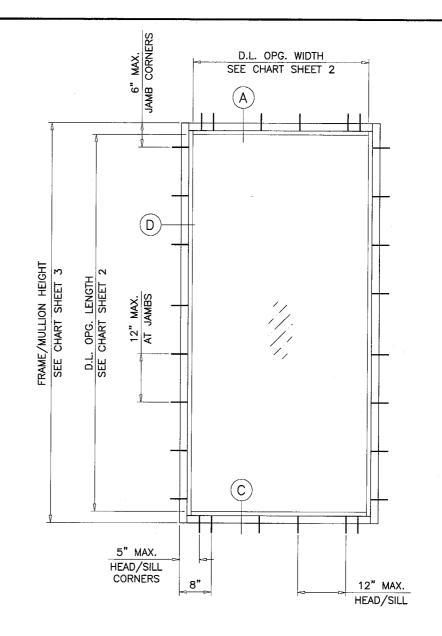
### G. OTHER

1. Letter from the consultant stating that the product is in compliance with the Florida Building Code (FBC).

Herminio F. Gonzalez, P.E. Director, Building Code Compliance Office NOA No 05-0620.01

Expiration Date: August 04, 2010 Approval Date: August 04, 2005





# TYPICAL ELEVATIONS

### SERIES-2046A IMPACT WINDOW WALL SYSTEM

THIS SYSTEM IS RATED FOR LARGE MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2004 EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE.

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ALL STEEL IN CONTACT WITH ALUMINUM TO BE PAINTED OR PLATED.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A 33% INCREASE IN ALLOWABLE STRESS IS USED IN DESIGN OF WOOD ANCHORS ONLY.

## **INSTRUCTIONS:**

USE CHARTS AS FOLLOWS.

- STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2 SEE CHART ON SHEETS 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3 CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4 USING CHARTS ON SHEET 4 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5 THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.



ngr: DR. HUMAYOUN FAROOQ SYRUCTURES FLA PE # 16557 C.A.N. 3538 MAY 2 5 2005

| revision       |                   |               |          |
|----------------|-------------------|---------------|----------|
| date: 04-08-05 | scale: 1/2"=1'-0" | dr. by: HAMID | chk. by: |
|                | wing              | - 1           | 7        |
| she            | et 1              | of            | 7        |

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description

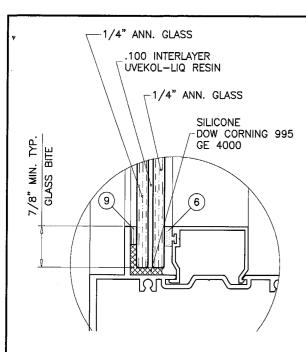
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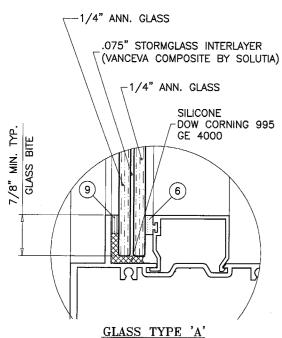
AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

(L.M.I.)

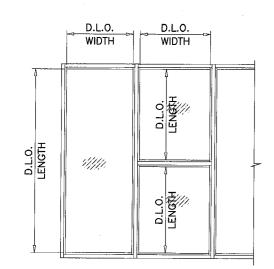
SERIES-2046A ALUM WINDOW WALL SYSTEM

GLASSTECH ENGINEERING II 8321 N.W. 70TH STREET MIAMI, FL. 33166 TEL. (305) 594-4321 FAX. (30



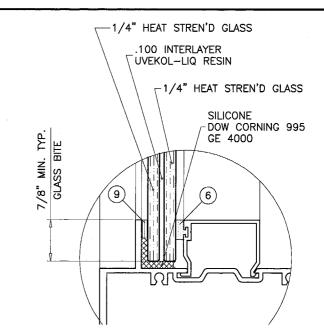


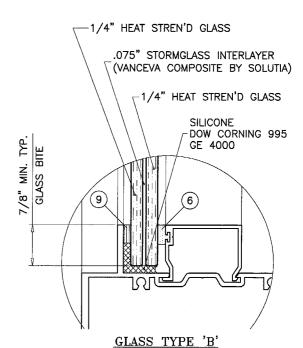
| GLASS DES    | SIGN LOAD         | CAPACITY - PSF    |  |  |  |  |  |  |
|--------------|-------------------|-------------------|--|--|--|--|--|--|
| NOMIN        | AL DIMS.          | GLASS TYPE 'A'    |  |  |  |  |  |  |
| D.L.O. WIDTH | D.L.O. LENGTH     | EXT.(+) & INT.(-) |  |  |  |  |  |  |
| 24"          |                   | 120.0             |  |  |  |  |  |  |
| 30"          |                   | 120.0             |  |  |  |  |  |  |
| 36"          |                   | 112.6             |  |  |  |  |  |  |
| 42"          | 66"               | 91.4              |  |  |  |  |  |  |
| 48"          |                   | 78.3              |  |  |  |  |  |  |
| 54"          |                   | 69.1              |  |  |  |  |  |  |
| 60"          |                   | 61.9              |  |  |  |  |  |  |
| 24"          |                   | 120.0             |  |  |  |  |  |  |
| 30"          |                   | 120.0             |  |  |  |  |  |  |
| 36"          | 70"               | 100.0             |  |  |  |  |  |  |
| 42"          | 72"               | 85.1              |  |  |  |  |  |  |
| 48"          |                   | 72.4              |  |  |  |  |  |  |
| 54"          |                   | 63.7              |  |  |  |  |  |  |
| 24"          |                   | 120.0             |  |  |  |  |  |  |
| 30"          |                   | 120.0             |  |  |  |  |  |  |
| 36"          | 70"               | 100.0             |  |  |  |  |  |  |
| 42"          | 78"               | 79.7              |  |  |  |  |  |  |
| 48"          |                   | 67.2              |  |  |  |  |  |  |
| 24"          |                   | 120.0             |  |  |  |  |  |  |
| 30"          | 84"               | 100.0             |  |  |  |  |  |  |
| 36"          |                   | 96.7              |  |  |  |  |  |  |
| 42"          |                   | 75.1              |  |  |  |  |  |  |
| 24"          |                   | 120.0             |  |  |  |  |  |  |
| 30"          |                   | 100.0             |  |  |  |  |  |  |
| 36"          | 90"               | 92.9              |  |  |  |  |  |  |
| 42"          |                   | 71.3              |  |  |  |  |  |  |
| 24"          |                   | 120.0             |  |  |  |  |  |  |
| 30"          | 96"               | 100.0             |  |  |  |  |  |  |
| 36"          |                   | 89.8              |  |  |  |  |  |  |
| 24"          |                   | 100.0             |  |  |  |  |  |  |
| 30"          | 102"              | 100.0             |  |  |  |  |  |  |
| 36"          |                   | 87.3              |  |  |  |  |  |  |
| 24"          |                   | 100.0             |  |  |  |  |  |  |
| 30 <b>"</b>  | 108"              | 100.0             |  |  |  |  |  |  |
| 36"          |                   | 85.1              |  |  |  |  |  |  |
| 24"          | 114"              | 100.0             |  |  |  |  |  |  |
| 30"          | ; 1* <del>1</del> | 100.0             |  |  |  |  |  |  |
| 24"          | 120"              | 100.0             |  |  |  |  |  |  |
| 30"          | 120               | 100.0             |  |  |  |  |  |  |



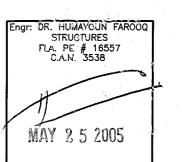
VALUES SHOWN ABOVE ARE MAXIMUM DAYLITE OPENING DIMS. FOR GLASS. SEE MULLION CHARTS FOR MULLION CAPACITY.

| GLASS DES    | SIGN LOAD      | CAPACITY - PSF    |
|--------------|----------------|-------------------|
| NOMIN        | AL DIMS.       | GLASS TYPE 'B'    |
| D.L.O. WIDTH | D.L.O. LENGTH  | EXT.(+) & INT.(-) |
| 24"          |                | 120.0             |
| 30"          |                | 120.0             |
| 36"          |                | 120.0             |
| 42"          |                | 120.0             |
| 48"          | 66"            | 120.0             |
| 54"          |                | 120.0             |
| 60"          |                | 120.0             |
| 24"          |                | 120.0             |
| 30"          |                | 120.0             |
| 36"          |                | 120.0             |
| 42"          | 72"            | 120.0             |
| 48"          | , <del>-</del> | 120.0             |
| 54"          |                | 120.0             |
| 60"          |                | 114.6             |
| 24"          |                | 120.0             |
| 30"          |                | 120.0             |
| 36"          |                | 120.0             |
| 42"          | 78"            | 120.0             |
| 48"          |                | 120.0             |
| 54"          |                | 118.0             |
| 60"          |                | 106.3             |
| 24"          |                | 120.0             |
| 30"          |                | 120.0             |
| 36"          | 84"            | 120.0             |
| 42"          |                | 120.0             |
| 48"<br>54"   |                | 120.0             |
| 24"          |                | 109.8<br>120.0    |
| 30"          |                | 120.0             |
| 36"          |                | 120.0             |
| 42"          | 90"            | 120.0             |
| 48"          |                | 117.7             |
| 54"          |                | 102.4             |
| 24"          |                | 120.0             |
| 30"          |                | 120.0             |
| 36"          | 96"            | 120.0             |
| 42"          |                | 120.0             |
| 48"          |                | 111.0             |
| 24"          |                | 120.0             |
| 30"          |                | 120.0             |
| 36"          | 102"           | 120.0             |
| 42"          |                | 120.0             |
| 48"          |                | 105.4             |
| 24"          |                | 120.0             |
| 30"          | 108"           | 120.0             |
| 36"          | 100            | 120.0             |
| 42"          |                | 120.0             |
| 24"          |                | 120.0             |
| 30"          | 114"           | 120.0             |
| 36"          |                | 120.0             |
| 42"          |                | 120.0             |
| 44"          | 114-1/4"       | 112.2             |
| 24"          |                | 120.0             |
| 30"          | 120"           | 120.0             |
| 36"          | <u></u>        | 120.0             |





Approved as complying with the Florida Building Code
Date 08 04 05



sheet 2 of 7

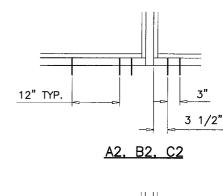
AL-FAROOQ CORPORATION
ENGINEERS, PLANNERS & PRODUCT DESIGN
1235 SW 87 AVE
MIAMI, FLORIDA 33174
TEL. (305) 264-8100 FAX. (305) 262-6978

SYSTEM (L.M.I.)

|            |              | JON LOAD<br>T INTERME  |                             |                     |                     |          |  |        |                 | 1  |            |              |                        | CAPACITY -          |                     |                     | 1   |          | \_INTERI                  | MEDIATE HO                            | RIZONTALS        | $\mathcal{L}_{\mathcal{C}}$                                   |
|------------|--------------|------------------------|-----------------------------|---------------------|---------------------|----------|--|--------|-----------------|--|------------|--------------|------------------------|---------------------|---------------------|---------------------|-----|----------|---------------------------|---------------------------------------|------------------|---|
| NOMINA     | AL DIMS.     | WITHOUT<br>REINFORCING | ST-1<br>REINFORCING         | ST-2<br>REINFORCING | ST-3<br>REINFORCING | -        |  |        |                 |  | NOMIN      | NAL DIMS.    | WITHOUT<br>REINFORCING | ST-1<br>REINFORCING | ST-2<br>REINFORCING | ST-3<br>REINFORCING |     |          | <del>-\</del> -           |                                       |                  |   |
| WIDTH (W)  | FRAME HEIGHT | EXT.(+)<br>INT.(-)     | EXT.(+)<br>INT.(-)          | EXT.(+)<br>INT.(-)  | EXT.(+)<br>INT.(-)  |          |  |        | HEIGHT          |  | WIDTH (W)  | FRAME HEIGHT | EXT.(+)<br>INT.(-)     | EXT.(+)<br>INT.(-)  | EXT.(+)<br>INT.(-)  | EXT.(+)<br>INT.(-)  |     | -        |                           |                                       |                  | CORPORATION  ERS & PRODUCT DESIGN  174  0 FAX. (305) 262-6978 |
| 24"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               | 1        |  |        |                 |  | 24"        | TOWNE TIERS  | 100.0                  | 120.0               | 120.0               | 120.0               | 1   |          |                           |                                       | HEIGHT           | ON<br>DES   |
| 30"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        | FRAME           |  | 30"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       | <u>Т</u>         | CT TI   |
| 36"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        | 胀               |  | 36"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          | WW.                       | 41111                                 | FRAME            | ) RAT RODUC (305)   |
| 42"<br>48" | 72*          | 100.0                  | 120.0<br>120.0              | 120.0               | 120.0               |          |  |        |                 |  | 42"        | 72"          | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       | ] [              | )<br>[0]  |
| 54"        |              | 100.0                  | 120.0                       | 120.0               | 120.0<br>120.0      | i '      | _ W1                                   | W2     | ,               |  | 48"<br>54" |              | 100.0                  | 120.0<br>120.0      | 120.0               | 120.0               |     |          |                           |                                       | V                | RPP<br>RAX.   |
| 60"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          | P                                      |        |                 |  | 60"        |              | 100.0                  | 120.0               | 120.0<br>120.0      | 120.0<br>120.0      | '   |          | W1                        | W2                                    | i                | CO<br>NNERS<br>VE<br>333174<br>3100                           |
| 24"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               | ١ ١      | WIDTH (W) =                            | = W1 + | <u>W2</u>       |  | 24"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     | -        |                           |                                       |                  | - 불교였인  |
| 30"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  | 2      |                 |  | 30"        |              | 100.0                  | 120.0               | 120.0               | 120.0               | ] \ | WIDTH    | (W) =                     | W1 +                                  | W2               | ROOQ<br>S, PLANI<br>87 AVE<br>DRIDA 3                         |
| 36"<br>42" | 7 <b>8</b> " | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 36"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          | ()                        | 2                                     |                  | FAROOQ<br>EERS, PLAN<br>SW 87 AVI<br>FLORIDA 3                |
| 42         | /6           | 100.0                  | 120.0<br>120.0              | 120.0               | 120.0<br>120.0      |          |  |        |                 |  | 42"<br>48" | 78"          | 100.0                  | 120.0               | 120.0               | 120.0               | -   |          |                           |                                       |                  | -FA]<br>NEERS<br>S SW<br>I, FL(<br>(305)                      |
| 54"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 54"        |              | 100.0                  | 120.0               | 120.0<br>120.0      | 120.0<br>120.0      |     |          |                           |                                       |                  | AL-F<br>ENGINEE<br>1235 S<br>MIAMI,<br>TEL. (30               |
| 60"        |              | _                      | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 60"        |              | -                      | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | A 12 E A  |
| 24"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        | [E )            |  | 24"        |              | 100.0                  | 120.0               | 120.0               | 120.0               | 1   |          |                           |                                       |                  |   |
| 30"<br>76" |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        | Ľ               |  | 30"        | F            | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | (L.M.I.)  |
| 36"<br>42" | 84"          | 100.0                  | 120.0<br>120.0              | 120.0               | 120.0<br>120.0      |          |  |        | <b>}</b>        |  | 36"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  |   |
| 48"        | 04           | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        | .125 →          |  | 42"<br>48" | 84"          | 100.0                  | 120.0<br>120.0      | 120.0               | 120.0               |     |          |                           |                                       |                  | SYSTEM INC.   |
| 54"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 54"        | !            | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  |   |
| 60"        |              | _                      | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 60"        |              | -                      | 111.6               | 120.0               | 120.0               |     |          |                           |                                       |                  |   |
| 24"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        |                 | 15 <u> </u>                                  | 24"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | ALUM WINDOW WALL ENGINEERING 70TH STREET 33166                |
| 30"        | -            | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 30"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | NDO NEC   |
| 36"<br>42" | 90"          | 100.0                  | 120.0                       | 120.0<br>120.0      | 120.0<br>120.0      |          |  |        | ST-1            |  | 36"        | 00"          | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | ₩   X   X   X   X   X   X   X   X   X                         |
| 48"        |              | 95.9                   | 120.0                       | 120.0               | 120.0               |          |  |        | 51 1            |  | 42"<br>48" | 90"          | 100.0<br>97.1          | 120.0<br>120.0      | 120.0<br>120.0      | 120.0<br>120.0      |     |          |                           |                                       |                  | ENGIN WITH TOTAL  |
| 54"        |              | -                      | 120.0                       | 120.0               | 120.0               |          |  |        | <u> </u>        |  | 54"        |              | _                      | 108.0               | 120.0               | 120.0               |     |          |                           |                                       |                  |   |
| 60"        |              |                        | 113.9                       | 120.0               | 120.0               |          |  |        |                 |  | 60"        |              | <b>-</b>               | 97.2                | 115.6               | 120.0               |     |          |                           |                                       |                  | S-2046A<br>STECH<br>N.W.<br>I, FL.                            |
| 24"        |              | 100.0                  | 120.0                       | 120.0               | 120.0               |          |  |        |                 | 2  | 24"        |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | SERIES-204  GLASSTEC  8321 N.V  MIAMI, FL                     |
| 30"<br>36" | F            | 100.0<br>100.0         | 120.0<br>120.0              | 120.0<br>120.0      | 120.0<br>120.0      |          |  |        |                 |  | 30"<br>36" |              | 100.0                  | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | SERIES-<br>GLAS:<br>8321<br>MIAMI,                            |
| 42"        | 96"          | 93.2                   | 120.0                       | 120.0               | 120.0               |          |  |        |                 | 15   | 42"        | 96"          | 100.0<br>91.4          | 120.0<br>120.0      | 120.0<br>120.0      | 120.0<br>120.0      |     |          |                           |                                       |                  |   |
| 48"        |              | 83.3                   | 116.3                       | 120.0               | 120.0               |          |  |        | .187            |  | 48"        |              | 80.0                   | 106.8               | 120.0               | 120.0               |     |          |                           |                                       |                  |   |
| 54"        |              |                        | 105.9                       | 120.0               | 120.0               |          |  |        |                 |  | 54"        |              | -                      | 94.9                | 112.9               | 120.0               |     |          |                           |                                       | <del>li</del> na |   |
| 60"        |              | -                      | 98.0                        | 116.6               | 120.0               |          |  |        |                 | 20   | 60"        |              | -                      | 85.4                | 101.6               | 115.2               |     | Appro    | oved:as cor<br>ta Buiding | aplying with (<br>Code                | and a            |   |
| 24"<br>30" | -            |                        | 120.0                       | 120.0<br>120.0      | 120.0<br>120.0      |          |  |        |                 |  | 24"<br>30" |              | -                      | 120.0               | 120.0               | 120.0               |     | Date     | 08 04                     | 620.0L                                | <b>9</b> '       |   |
| 36"        | 400"         |                        | 120.0                       | 120.0               | 120.0               |          |  |        |                 |  | 36"        |              |                        | 120.0<br>120.0      | 120.0<br>120.0      | 120.0<br>120.0      |     | Miss     | ai Bade ('n               | dest Contra                           | ſ                | cription  |
| 42"        | 102"         |                        | 114.4                       | 120.0               | 120.0               |          |  |        | ST-2            |  | 42"        | 102"         | -                      | 108.1               | 120.0               | 120.0               |     | Divis    | 7% X                      | Traft                                 |                  | l Gui   |
| 48"        | -            |                        | 101.9                       | 120.0               | 120.0               |          |  |        |                 |  | 48"        |              | _                      | 94.6                | 112.5               | 120.0               |     | <b>D</b> | -                         |                                       |                  | qes   |
| 54"<br>24" |              |                        | 92.6                        | 110.1               | 120.0               | <u> </u> | الرجي ا                                |        |                 |  | 54"        |              | _                      | 84.1                | 100.0               | 113.4               |     |          |                           |                                       |                  | λą  |
| 30"        | 1            |                        | 120.0                       | 120.0<br>120.0      | 120.0<br>120.0      |          |  |        |                 |  | 24"<br>30" |              |                        | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  |   |
| 36"        | 108"         | _                      | 116.7                       | 120.0               | 120.0               | Z        | হ                                      |        |                 | <u>                                     </u> | 30"<br>36" | 108"         |                        | 120.0<br>112.5      | 120.0<br>120.0      | 120.0<br>120.0      |     |          |                           |                                       |                  | Sions   |
| 42"        |              |                        | 101.4                       | 120.0               | 120.0               | <u>/</u> | , H                                    |        | \ <del>-</del>  |  | 42"        |              | -                      | 96.5                | 114.7               | 120.0               |     |          |                           |                                       |                  | no  |
| 48"        |              | _                      | 90.2                        | 107.2               | 120.0               |          | \$                                     |        | .250-           | 15   | 48"        |              | _                      | 84.4                | 100.4               | 113.8               |     |          |                           | e e e e e e e e e e e e e e e e e e e |                  |   |
| 24"        |              |                        | 120.0                       | 120.0               | 120.0               | 5        | الم                                    |        | \(\frac{1}{2}\) |  | 24"        |              | -                      | 120.0               | 120.0               | 120.0               |     |          |                           |                                       |                  | 8   |
| 30"<br>36" | 114"         | -                      | 120.0<br>10 <del>4</del> .4 | 120.0<br>120.0      | 120.0<br>120.0      |          | , [h                                   |        |                 | <u>  [</u>                                   | 30"        | 4448         | _                      | 120.0               | 120.0               | 120.0               |     |          | Eng                       | T. DR. HUMAY                          | OUN FAROO        |   |
| 42"        | ···          |                        | 90.6                        | 107.7               | 120.0               |          | ্ব                                     |        |                 | [된   | 36"<br>42" | 114"         |                        | 101.0<br>86.6       | 120.0<br>103.0      | 120.0<br>116.8      |     |          |                           | FLA. PE #                             | 16557            |   |
| 48"        |              |                        | 80.4                        | 95.6                | 108.4               |          | _   -                                  |        |                 |  | 48"        |              | _                      | 75.7                | 90.1                | 102.2               |     |          |                           | C.A.N. '3                             | 038              | "   일   일   일   |
| 24"        |              |                        | 120.0                       | 120.0               | 120.0               | L        | لـــــــــــــــــــــــــــــــــــــ |        |                 |  | 24"        |              | _                      | 120.0               | 120.0               | 120.0               |     |          |                           | T                                     |                  | Scal att  |
| 30"        | 150"         |                        | 111.7                       | 120.0               | 120.0               |          |  |        | ST-3            |  | 30"        |              |                        | 109.4               | 120.0               | 120.0               |     |          |                           | 1/                                    |                  | drawing no  |
| 36"<br>42" | 120"         | _                      | 93.9<br>81.4                | 111.7<br>96.8       | 120.0               | M        | IULLION                                |        | MULLION         |  | 36"        | 120"         | -                      | 91.1                | 108.4               | 120.0               |     |          | th to                     | 1881 ~ ~ ~                            | )AOF             | W05-17  |
| 48"        | -            | _                      | 72.1                        | 85.8                | 109.7<br>97.2       | w/O F    | REINFORCING                            |        | W/ REINFOR      | CING   | 42"<br>48" |              |                        | 78.1<br>68.4        | 92.9<br>81.3        | 105.4<br>92.2       |     |          | I W                       | AY 252                                | (005             |   |
|            |              |                        |                             |                     |                     |          |  |        |                 |  |            |              |                        | 00.4                | 01.0                | 32.2                |     |          |                           |                                       |                  | sheet 3 of 7  |

|                       | ANCH         |       | CAPACI<br>& INT.(- | TY - PS         | F     |       |  |
|-----------------------|--------------|-------|--------------------|-----------------|-------|-------|--|
| NOMIN                 | NAL DIMS.    | ANC   | HORS TY            | TYPE 'B' OR 'C' |       |       |  |
| WIDTH (W)             | FRAME HEIGHT | A2    | A3                 | A4              | B2/C2 | B3/C3 |  |
| 24"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 30"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 42"                   | 60"          | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 48"                   |              | 118.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 54"                   |              | 118.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 60"                   |              | 110.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 24"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 30"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   |              | 119.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 42"                   | 66"          | 119.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 48"                   |              | 107.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 54"                   |              | 107.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 60"                   |              | 100.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 24"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 30"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   |              | 109.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 42"                   | 72"          | 109.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 48"                   | -            | 98.0  | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 54"                   |              | 98.0  | 116.0              | 120.0           | 120.0 | 120.0 |  |
| 60"                   |              | 91.0  | 116.0              | 120.0           | 120.0 | 120.0 |  |
| 24"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 30"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   |              | 101.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 42"                   | 78"          | 101.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 48"                   |              | 90.0  | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 54"                   | ŀ            | 90.0  | 107.0              | 120.0           | 120.0 | 120.0 |  |
| 60"                   | <b> </b>     | 84.0  | 107.0              | 120.0           | 120.0 | 120.0 |  |
| 24"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 30"                   |              | 112.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   |              | 93.0  | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 42"                   | 84"          | 93.0  | 112.0              | 120.0           | 120.0 | 120.0 |  |
| 48"                   |              | 84.0  | 112.0              | 120.0           | 120.0 | 120.0 |  |
| 54"                   |              | 84.0  | 100.0              | 120.0           | 120.0 | 120.0 |  |
| 60"                   |              | 78.0  | 100.0              | 112.0           | 120.0 | 120.0 |  |
| 24"                   |              | 120.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 30"                   | <b> </b>     | 105.0 | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   | <b> </b>     | 87.0  | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 42"                   | 90"          | 87.0  | 105.0              | 120.0           | 120.0 | 120.0 |  |
| 42<br>48"             | 30           | 78.0  | 105.0              | 118.0           | 120.0 | 120.0 |  |
| 54"                   |              | 78.0  | 93.0               | 116.0           | 120.0 |       |  |
| 60"                   | -            | 73.0  | 93.0               |                 |       | 120.0 |  |
| 24"                   |              | 120.0 |                    | 105.0           | 120.0 | 120.0 |  |
| 2 <del>4</del><br>30" | -            |       | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36"                   |              | 98.0  | 120.0              | 120.0           | 120.0 | 120.0 |  |
| 36<br>42"             | 96"          | 82.0  | 114.0              | 120.0           | 120.0 | 120.0 |  |
| 42<br>48"             | -            | 82.0  | 98.0               | 120.0           | 120.0 | 120.0 |  |
|                       | -            | 74.0  | 98.0               | 110.0           | 120.0 | 120.0 |  |
| 54"                   |              | 74.0  | 87.0               | 109.0           | 120.0 | 120.0 |  |

|           | ANCHOR LOAD CAPACITY - PSF<br>EXT.(+) & INT.(-) |       |       |             |                |       |  |  |  |  |  |  |
|-----------|---|-------|-------|-------------|----------------|-------|--|--|--|--|--|--|
| NOMIN     | NOMINAL DIMS. ANCHORS TYPE 'A' TYPE 'B' OR 'C'  |       |       |             |                |       |  |  |  |  |  |  |
| WIDTH (W) | FRAME HEIGHT                                    | A2    | A3    | B2/C2 B3/C3 |                |       |  |  |  |  |  |  |
| 24"       |   | 115.0 | 120.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 30"       |   | 92.0  | 120.0 | 120.0       | 120.0          |       |  |  |  |  |  |  |
| 36"       |   | 77.0  | 108.0 | 120.0       | 120.0<br>120.0 | 120.0 |  |  |  |  |  |  |
| 42"       | 102"  | 77.0  | 92.0  | 119.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 48"       |   | 69.0  | 92.0  | 104.0       |                |       |  |  |  |  |  |  |
| 54"       |   | 69.0  | 82.0  | 102.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 24"       |   | 109.0 | 120.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 30"       |   | 87.0  | 120.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 36"       | 108"  | 73.0  | 102.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 42"       |   | 73.0  | 87.0  | 112.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 48"       |   | 65.0  | 87.0  | 98.0        | 120.0          | 120.0 |  |  |  |  |  |  |
| 54"       |   | 65.0  | _     | _           | 120.0          | _     |  |  |  |  |  |  |
| 24"       |   | 103.0 | 120.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 30"       |   | 83.0  | 116.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 36"       | 114"  | 69.0  | 96.0  | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 42"       |   | 69.0  | 83.0  | 106.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 48"       |   | 62.0  | 83.0  | 93.0        | 120.0          | 120.0 |  |  |  |  |  |  |
| 24"       |   | 98.0  | 120.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 30"       | 120"  | 78.0  | 110.0 | 120.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 36"       | 120   | 65.0  | 91.0  | 118.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 42"       |   | 65.0  | 78.0  | 101.0       | 120.0          | 120.0 |  |  |  |  |  |  |
| 48"       |   | 59.0  | 78.0  | 88.0        | 119.0          | 120.0 |  |  |  |  |  |  |



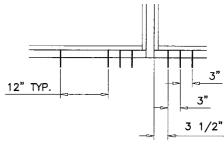
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599-2730

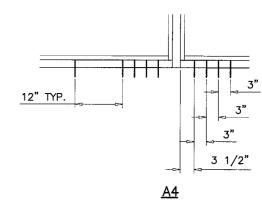
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SERIES-2046A ALUM WINDOW WALL SYSTEM (L.M.I.)





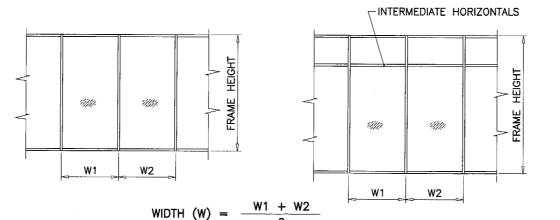


#### ANCHORS TYPES: SEE SHEET 5 FOR DESCRIPTION

Approved as complying with the

A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION

B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION



2

